Possession and Carrying of Firearms Among Suburban Youth

JOSEPH F. SHELEY, PhD VICTORIA E. BREWER, MSW, MSB

The authors are with Tulane University, Department of Sociology. Dr. Sheley is Professor, and Ms. Brewer is a PhD candidate.

Tearsheet requests to Joseph F. Sheley, PhD, Department of Sociology, 220 Newcomb Hall, Tulane University, New Orleans, LA 70118, tel. (504) 865–5820, FAX (504) 865–5544.

Synopsis

Despite a growing body of anecdotal evidence suggesting the spread of firearms to suburban juvenile populations, most studies of firearm activity by juveniles focus either on urban youth or on nationally representative samples that blur urban and nonurban distinctions. This study represents the first systematic empirical investigation specifically of a suburban population of juveniles. The authors examine both ownership and carrying behaviors, distinguish types of handguns involved, and assess the

influence of drug activity, violent criminality, and the perception of one's social environment as dangerous upon the possession and carrying of firearms.

Among the variables linked at the bivariate level to possession and carrying of guns were sex, involvement in criminal activity, involvement in drug activity, and most indicators of a dangerous social environment. At the multivariate level, however, only sex was associated with possession of a revolver, and only sex, criminal activity (for boys only), and one indicator of dangerous environment (having been threatened with a gun, for girls only) were associated with possession of an automatic or semiautomatic handgun.

Aside from sex, criminal and drug activities were associated with gun carrying. Despite its importance among urban samples, in this study the dangerous environment was not linked to firearm activity. Possible reasons for this difference are explored in the conclusion.

Gun-related violence among youth increasingly commands the attention of public health researchers and practitioners (1-6). In 1990, 82 percent of the homicides of persons 15 to 19 years old were committed with guns (7-9). A number of recent studies have examined the prevalence of gun possession among adolescent students (10-14). In a 1991 multi-State project, for example, 1 in 3 male and 1 in 10 female inner-city high school students had carried a gun on the streets (15,16).

Guns Among Suburban Adolescents

All studies of youths and guns to date have focused either on urban youth or on nationally representative samples that blur urban and nonurban distinctions. Only one study—Sadowski and coworkers (11)—pertained directly to nonurban youth. However, this sample was highly select and the report of findings does not distinguish suburban from rural respondents; residents of rural areas generally have high rates of gun ownership of all kinds (17). Nonetheless, a considerable body of anecdotal evidence points to the spread of firearms beyond city limits and into the

hands of suburban juveniles (18-22). To the extent that this is the case, it necessitates a reconceptualization of the "kids and guns" problem; no longer can we portray juvenile firearm activity, at least exclusively, as a reflection of urban poverty and drug trafficking.

Firearms Study

Against this backdrop, this paper describes the first systematic empirical firearms study specifically of a suburban population of juveniles. Furthermore, it seeks to address ambiguities in prior research. The studies cited previously differ in their attention to the characteristics of gun owners and carriers and in their specificity regarding the types of guns in question, some referring only to "guns," others to "handguns," and only one to a wider range of firearms. Additionally, only a few of the studies—to widely varying degrees—delve into the reasons youths carry firearms or attempt to connect firearm activity to other variables. Thus, this effort examines both ownership and carrying behaviors, distinguishes general types of handguns involved, and investigates the

influence of drug activity, violent criminality, and the perception of one's social environment as dangerous on firearm-related activity.

These last elements—drug activity, violent criminal behavior, and self-preservation in a hostile environment-form the core of most popular discussions and policy efforts concerning youth and guns (23). Researchers have found statistically significant associations between the carrying and use of guns and other weapons and the levels of drug use and drug distribution activity in samples of urban youth (14,24). Regarding criminal activity, juveniles who report robbery and assaultive behavior have higher rates of gun and other weapon possession than do nonviolent juveniles, and higher levels of gun possession and carrying have been reported among officially adjudicated, juvenile violent offenders than among juvenile offenders of other types (14,25-28). Finally, a number of studies have pointed to selfprotection in a dangerous environment as the primary factor motivating the weapons activity of youth (13,16,28-30).

Research Site

The study was conducted in Jefferson Parish, LA. Jefferson Parish borders the city of New Orleans on the west. Its approximately 450,000 residents place it 100th among the nation's 3,319 counties. It is classically suburban, with little industry. Predominantly white (78 percent), it is the wealthiest of Louisiana's parishes and is known statewide as a "white-flight" area (since 1960, its general population has more than doubled while New Orleans' has decreased and become increasingly African American). Like most suburban areas, Jefferson Parish has a low crime rate relative to New Orleans and has experienced little gang activity. Still, since the mid-1980s, crime rates have increased in the parish and with them public outrage. (As this paper was being written, Jefferson Parish recorded its first incident of a public high school teacher being shot by a student—in this instance, a 14-year-old boy upset over a change in the classroom seating arrangement.)

Admittedly, no single suburban locale is representative of all such locales; what are labeled suburbs in America display considerable variation, perhaps more than that among what we term "cities." Nonetheless, Jefferson Parish does not appear unusual in any obvious way. Its 1990 per capita income was \$12,845, with a median household income of \$27,916. Of the adult population, 76 percent have a high school diploma or some college education; 19 percent have college degrees. Two-thirds of the

'Thirteen percent of the respondents owned or possessed a revolver; 9 percent, an automatic or semiautomatic handgun at the time of the survey.'

population is in the labor force; unemployment in recent years has averaged about 7 percent.

Method

Public high school students were the subjects for the study of guns in the hands of Jefferson Parish youth. Available resources and logistical constraints precluded a truly random sample of such students. However, an attempt was made to accomplish as broad and systematic a sampling as possible. To this end, pupils in three of Jefferson Parish's seven public high schools were surveyed in the spring of 1993. The three schools were selected on the basis of their academic profiles to assure a broader spectrum of academic caliber across schools than could be assured even with a simple random sample of the seven schools in question. Thus, Jefferson Parish high schools were divided into thirds (two schools each in the top and bottom thirds and three in the middle third) based on the percentage of their students scoring above the 50th percentile on the California Achievement Test (CAT).

One school was chosen randomly from each third; each of the three principals approached about the study responded affirmatively. To the extent that the sociodemographic status of the schools' student bodies (largely middle and working class, as in Jefferson Parish generally) varied, it did so directly with the schools' CAT scores. Importantly, school affiliation had no influence on any finding reported subsequently.

Principals in each of the schools provided access to as broad a sample of sophomores and juniors in attendance on the day of the survey as was practically possible. (The principals warned that seniors had a particularly low attendance rate in the spring.) In two schools, this meant distribution of the questionnaire in several English classes, mandatory for most students. In the third school, students were surveyed in their homerooms. Attendance in two schools on the day of administration was roughly 90 percent, and in the third, roughly 70 percent. The smaller percentage pertained to the school with the lowest CAT scores

Table 1. Percentages of high school students who owned or carried firearms, by sex and race-ethnicity, Jefferson Parish, LA. 1993

Variable	Total (N=418)	Boys (N=200)	Girls (N=218)		White (N=274)	Other (N=55)
Owns revolver Owns automatic or semiautomatic	12.9	19.5	16.9	8.0	16.8	² 1.8
handgun Carries a gun				10.2 14.8	9.1 19.8	5.5 7.3

 $^{{}^{1}}P < .001$ (Likelihood ratio χ^{2}). ${}^{2}P < .01$ (Likelihood ratio χ^{2}).

and was identified by the principal as the standard attendance figure for the spring semester.

No attempt was made to sample students who were not in attendance on the day the survey was administered nor to sample high school dropouts in the parish. Assuming correlations between absence and behavioral problems and between dropping out and behavioral problems, however, we would argue that the present findings represent somewhat conservative estimates of the behaviors and attitudes of interest in this study.

The survey was introduced to the students as a study of firearm-related activity among youth. It was made clear to respondents that participation in the study was voluntary and completely anonymous. In each school, more than 95 percent of the students who were addressed by the researchers chose to participate in the study. The number of respondents ultimately totaled 432: 133 from one school, 139 from a second, and 160 from the third. Conservatively, 14 questionnaires were excluded from analysis (leaving 418) because the respondents failed to answer more than five of the questionnaire itemsthough these respondents differed little from the others regarding firearm profile. In the subsequent tables, the total number of respondents therefore will vary only slightly due to missing data. Missing responses in this study averaged only 1.6 per item.

The sample contained nearly equal numbers of boys (48 percent) and girls (52 percent). Sixty-six percent of the respondents were white and 21 percent black. (The fact that the percentage of students who were white is smaller than the percentage of whites in the general parish population reflects the preference of many white Jefferson Parish parents for sending their children to less integrated private schools.) The remaining respondents were Hispanic, Asian, and "other"; these respondents, 13 percent of the total, have been combined into a single category—"other." Sixty-six percent of the students were in the 10th grade, and 34 percent were in the 11th. Finally, only

one-fifth of the respondents were younger than 16 (modal age = 16; mean age = 16.2).

Response Validation

Though self-reports of criminal activities have been proven valid (31), any study seeking reports of respondents' illegal activity should institute some validity checks. The absence of official records against which to compare the self-report data necessitated that validity assessment be centered on examination of relationships established through other studies. Thus, respondents who reported committing a crime with a weapon also were more likely to have been arrested (Pearson's r = .34). Those reporting drug use were also more likely than those who did not to have been arrested and to have committed a crime with a weapon (Pearson's r = .31 and .29, respectively). Respondents involved in drug dealing also were more likely to have been arrested (Pearson's r = .33) and to have committed a crime with a weapon (Pearson's r = .27). These findings parallel those of numerous other studies (24,31,32).

Additionally, responses to pairs of items were examined for logical consistency. For example, respondents who claimed never to carry a gun should not have identified, in a later item, their reason for carrying a gun. Four such pairs of items were examined. Inconsistent responses averaged only 1.4 percent within a range of .5 to 3.4 percent. To determine how systematic were the inconsistencies, we scored each respondent on the number of inconsistent answers; respondents could receive scores between 0 and 4. Only one respondent scored above 1, and that case received a score of 2.

Measurement

Firearm activity. Table 1 offers descriptive data for each measure of firearm activity employed in this study. Students were asked whether or not they presently possessed (a) a revolver (regular handgun) and (b) an automatic or semiautomatic handgun. The latter (firearms that automatically place a new round into the firing chamber) were treated in combination because the study's aim was simply to distinguish rapid-fire from more traditional handguns. Thirteen percent of the respondents owned or possessed a revolver; 9 percent, an automatic or semiautomatic handgun at the time of the survey. (Eighteen percent of the total sample owned at least one type of handgun; 4 percent owned both types.)

Obviously, one need not actually own a gun to carry one. It is easy to imagine that high school

students who carry guns do not own them (for example, guns that have been borrowed from or otherwise made available by friends and family members, possibly guns that are jointly owned by multiple students, and so forth). Indeed, a gun that is owned but not carried is considerably less dangerous than one that is carried. Respondents, therefore, were asked whether or not they carried a gun outside their homes, including in their cars (0 = no; 1 = yes). Seventeen percent reported engaging in this behavior. The wisdom of distinguishing owning from carrying guns is borne out by the finding that of the 99 respondents who reported engaging in ownership or in gun carrying, only 47 percent had done both.

In addition to descriptive data for the entire sample, table 1 provides sex and race differences regarding firearm activity. (Respondent's school affiliation, age, and grade level were unrelated to these same variables and are not reported in table 1.) Boys clearly were more actively involved in all of the behaviors examined in this study. White students were more likely to own revolvers, though race otherwise was unrelated to participation in gun activities.

Drug activity. To the extent that drug use and drug sales have been shown to be associated with more serious illegal behavior, they appear most often to involve heroin, cocaine, and crack (32). Respondents were asked how often in the past year they had "used heroin, cocaine, or crack." The vast majority (96 percent) reported no use. One percent reported use "just once," and 3 percent use "a few times," or "many times." Additionally, the students were asked whether or not they had ever been "involved in dealing heroin, cocaine, or crack either as a seller or working for a seller." Four percent had done so "just once," 4 percent "a few times," and 1 percent "many times." Because so few students had engaged in either behavior, these measures were combined into one: aggregated drug activity (0 = no; 1 = yes).

Twelve percent of the respondents either had used heroin, cocaine, or crack at least once during the past year or had sold such drugs at least once in their lives. With one exception (boys were significantly more likely to be involved in aggregated drug activity), neither drug use, drug sales, nor aggregated drug activity was associated with any of the sociodemographic variables examined in this study.

Violent criminal activity. Our interest in violent criminality stems from a research literature that links predation to the use of weapons; that is, offenders engage in crimes that necessitate weaponry (25,26).

Table 2. Factors associated with handgun ownership and gun carrying by high school students, Jefferson Parish, LA, 1993

	Owned	handgun	Carried gun		
ltem	Number	Percent	Number	Percent	
Drug activity:					
No	370	14.3	369	13.0	
Yes	48	143.8	48	150.0	
Violent criminality:					
No	393	15.3	392	13.8	
Yes	23	¹ 56.5	23	169.6	
Fears violent attack:					
Never	172	19.8	171	17.5	
Rarely	169	19.5	169	18.3	
Sometimes	52	3.8	52	13.5	
Often	23	21.7	23	17.4	
Shot by age 25:					
Very unlikely	205	² 12.2	205	19.8	
Unlikely	141	17.7	141	19.9	
Likely	51	33.3	50	36.0	
Very likely	19	31.6	19	31.6	
Guns fired at social					
events:					
Never	252	111.1	251	19.2	
Rarely	87	19.5	87	24.1	
Sometimes	50	38.0	50	30.0	
Often	28	35.7	28	46.4	
Threatened with a gun:					
Never	323	¹ 11.5	322	19.9	
Just once	44	29.5	44	31.8	
A few times	31	45.2	31	48.4	
Many times	19	52.6	19	57.9	

 $^{^{1}}P < .001$ (Likelihood ratio χ^{2}).

 2P < .01 (Likelihood ratio χ^2).

To indicate violent criminality in this study, respondents were asked if, during the past year, they had "committed a crime with a weapon" (0 = no; 1 = yes). The qualification of the crime as weapon-related was intended to decrease the likelihood that respondents would report dispute-related encounters which might legally qualify as assaults but do not necessarily signal predation. Type of weapon was left unspecified in the item in order not to limit violent criminality simply to firearm-related offenses. Six percent of the sample had committed a violent crime during the past year. Boys reported significantly higher involvement in this activity; other so-ciodemographic variables were unrelated to it.

Dangerous environment. Since dangerous environment is a fairly complex variable, four different types of indicators are utilized in this study. One measures fear, two address events that suggest high risk of violence, and the fourth characterizes the environment in terms of the respondent's self-assessed prospects for violent victimization. Thus, respondents were asked about having been threatened with a gun, having attended social events where shots were fired,

Table 3. Logistic regression of selected variables on ownership of a revolver by high school students, Jefferson Parish, LA, 1993

	Total (N = 411)		Boys (N = 196)		Girls (N = 215)	
Demographic variables	Regression coefficients	Standard error	Regression coefficients	Standard error	Regression coefficients	Standard error
Sex:						
Boys (girls omitted)	1.820	.349				
Race (other omitted):						
White	12.559	1.048	8.066	19.632	1.401	1.147
Black	1.114	1.123	6.763	19.637	189	1.496
Drug activity	.745	.441	.776	.520	.645	.853
Violent criminality	.544	.555	.365	.669	1.178	1.007
Dangerous environment:					_	
Threatened with a gun	.337	.187	.396	.218	.241	.408
Guns fired at social events	.315	.199	.256	.241	.352	.358
Fears violent attack	330	.212	423	.281	189	.335
Fears being shot by age 25	032	.201	095	.248	.155	.351
Constant	2-5.149	1.169	-9.539	19.643	3-4.590	1.326
Fit information:						
Likelihood ratio chi-square	² 49.860		³ 27.596		11.580	
Degrees of freedom	9		8		8	

 $^{^{1}}$ P < .05. 2 P < .001. 3 P < .01. NOTE: P values computed via Wald Statistic.

Table 4. Logistic regression of selected variables on ownership of automatic or semiautomatic handgun by high school students, Jefferson Parish, LA, 1993

	Total (N = 411)		Boys (N = 196)		Girls (N = 215)	
Demographic variables	Regression coefficients	Standard error	Regression coefficients	Standard error	Regression coefficients	Standard error
Sex:						
Boys (girls omitted)	11.892	.559				
Race (other omitted):						
White	.482	.691	1.731	1.125	-1.319	1,222
Black	.080	.790	1.326	1.180	-8.803	61.002
Drug activity	.504	.493	.367	.539	1.371	1.987
Violent criminality	² 1.156	.575	² 1.409	.625	-9.456	168.474
Dangerous environment:						
Threatened with a gun	.280	.217	.060	.235	² 1.633	.739
Guns fired at social events	.316	.226	.419	.245	187	.826
Fears violent attack	432	.272	258	.293	705	.891
Fears of being shot by age 25	.169	.233	.197	.257	253	.876
Constant	3-4.879	.997	1-4.324	1.338	2-3.912	1.757
Fit information:						
Likelihood ratio chi-square	³ 50.971		123.310		14.395	
Degrees of freedom	9		8		8	

 $^{^{\}rm 1}$ P < .01. $^{\rm 2}$ P < .05. $^{\rm 3}$ P < .001. NOTE: P values computed via Wald Statistic.

fearing violent attacks in school, and the likelihood of being the victim of a gunshot wound by age 25. The four measures indexing "dangerous environment" vary in their relationships to each other (Pearson's r ranges from .05 to .37) and do not scale (alpha = .516).

Asked whether or not in the past year they had been threatened with a gun ("never," "just once," "a few times," and "many times"), 23 percent of the students responded affirmatively; 12 percent had

been threatened at least a few times. Importantly, this item does not distinguish type of threat. It is unclear whether, for example, the respondent had been personally and directly threatened with a gun or had been more generally threatened—as a member of group at whom a gun was pointed.

Respondents also were asked if, during the past year, they had attended parties (or other recreational events) at which guns had been fired. Forty percent had attended such events, 21 percent "rarely," 12

percent "sometimes," and 7 percent "often." Since schoolmates recreate together so often, it is assumed that the events in question number fewer than the number of students citing them. The exact number cannot be estimated currently. Since school affiliation is unrelated to any of the findings discussed in this study, we are able to state that the percentage of students attending recreational events of the type in question is not a function of problematic activity by the students of one school.

As well, respondents were asked how often, on an average day and when not in school, they feared a violent attack. Eighty-one percent "never" or "rarely" felt fearful; 13 percent "sometimes" experienced such fear; and 6 percent were afraid "often." Finally, respondents were asked the likelihood that by age 25 they will have been shot. Most (83 percent) considered the possibility "very unlikely" or "unlikely"; 12 percent thought it "likely," and 5 percent "very likely."

Sex was related to responses to each of the items indexing dangerous environment. Girls registered greater fear of violent attack, but boys were more likely to have been threatened with a gun, to have attended social events at which shots had been fired, and to judge themselves vulnerable to being shot by age 25. With one exception (African American students were more likely than others to have attended social events where shots had been fired), sociodemographic characteristics beyond sex were unassociated with responses to indicators of dangerous environment.

Findings

Bivariate relations. Importantly, the presentation of the problem at hand generally treats gun activity as influenced by such variables as drug and criminal activity and fear of attack. This is likely the case, and is the order we chose if for no other reason than that contemplating involvement in crime is more likely to lead to consideration of obtaining a gun than is possession of a gun to lead to the consideration (and certainly the commission) of a crime. As well, possession of a gun is less likely to lead to drug use and trafficking than is movement into drug activity of either kind to lead to the kinds of troublesome situations that suggest the need for a gun.

Treatment of the dangerous environment as an independent variable is more problematic. We cannot ascertain definitively, for example, whether the absence of a link between fear of attack and gun possession indicates no actual association or a decrease in fear after the acquisition of a gun. Nor

'Girls registered greater fear of violent attack, but boys were more likely to have been threatened with a gun, to have attended social events at which shots had been fired, and to judge themselves vulnerable to being shot by age 25.'

can we be sure whether being threatened with a gun increases the likelihood of carrying a gun or vice versa. Recognizing that we cannot eliminate this problem, we have attempted nonetheless to blunt its impact through use of the four different types of indicators described previously. In the final analysis, it must be stressed that the reverse of any of the causal orderings posited here is clearly possible, as is some form of reciprocal relationship. Given the cross-sectional nature of the data, the ordering of the variables in question technically awaits a longitudinal design.

In this study, bivariate-level findings regarding gun ownership did not vary across the two types of guns (revolvers and automatic or semiautomatic handguns) examined. Thus, table 2 presents findings regarding ownership of any handgun as the dependent variable. As portrayed in table 2, only one of the independent variables examined is not statistically significantly related to gun ownership and gun carrying; only fear of violent attack is unrelated to both dependent variables. (Recall that the sex link to this same independent variable differed from that of the other indicators of dangerous environment.) Involvement in drug activity and in violent crime positively influences the likelihood of gun possession and carrying. Attendance at social events where guns have been fired, having been threatened with a gun, and the belief that one will have been shot by age 25 are all associated with firearm activity.

Multivariate relations. Moderate interrelationships among many of the independent variables suggest the need for multivariate analysis. For example, violent criminality is significantly related to involvement in drug activity (Pearson's r = .31), to attendance at social events at which guns were fired (Pearson's r = .26), and to having been threatened with a gun (Pearson's r = .21). Having been threatened with a gun is linked to attendance at social events at which guns were fired (Pearson's r = .37) and to fear of being shot by age 25 (Pearson's r = .34).

Table 5. Logistic regression of selected variables on gun carrying by high school students, Jefferson Parish, LA, 1993

	Total (N = 410)		Boys (N = 195)		Girls (N = 215)	
Demographic variables	Regression coefficients	Standard error	Regression coefficients	Standard error	Regression coefficients	Standard error
Sex:						
Boys (girls omitted)	11.048	.348				
Race (other):						
White	² 1.432	.643	1.176	.781	1.772	1.174
Black	.392	.735	.386	.897	- .181	1.523
Drug activity	11.239	.433	11.298	.521	1.087	.824
Violent criminality	11.722	.565	12.316	.759	.435	1.067
Dangerous environment:						
Threatened with a gun	1.539	.182	1.646	.220	.539	.383
Guns fired at social events	.355	.188	.238	.232	.676	.346
Fears violent attack	171	.202	170	.263	304	.342
Fears being shot by age 25	.158	.195	168	.252	² .669	.333
Constant	3-5.158	.835	1-3.312	.993	3-6.558	1.494
Fit information:						
Likelihood ratio chi-square	³ 101.977		³ 53.757	• • •	30.086	
Degrees of freedom	9		8		8	

 $^{^{1}}$ P < .01, 2 P < .05, 3 P < .001. NOTE: P values computed via Wald Statistic.

Table 3 displays logistic regression coefficients describing the relation of ownership of a revolver to the demographic and independent variables of interest in this study. Table 4 duplicates this analysis after substituting ownership of an automatic or semi-automatic handgun as the dependent variable. Findings pertain to the entire sample and to subsamples of boys and girls.

An examination of the findings in tables 3 and 4 indicates that ownership of either type of handgun is related to sex of the respondent. As well, independent of the effects of other variables, whites are more likely than members of other racial and ethnic categories to possess a revolver, though not an automatic or semiautomatic handgun.

Beyond this, while none of the independent variables is related to ownership of a revolver, possession of an automatic or semiautomatic handgun is associated, for boys, with violent criminality and, for girls, with having been threatened with a gun. The picture is largely the same when we combine types of gun ownership into a single variable—ownership of at least one handgun of either type (findings not displayed in the tables). Again, boys and whites are more likely than their respective counterparts to own a handgun. For girls, having been threatened with a gun increases the odds of gun ownership. For boys, however, criminality is not associated with gun ownership but, in this instance, attendance at social events where guns have been fired is.

Logistic regression coefficients regarding gun carrying are presented in table 5. As with gun

ownership, sex and race of the respondent influence gun carrying apart from the effects of other variables. Beyond this, however, the picture differs considerably from that regarding gun ownership. Students—especially boys—who carry guns are more likely to be involved in drug activity and more likely to have committed crimes with weapons. For boys, dangerous environment has little to do with gun carrying; only having been threatened with a gun (likely, given the presumed lifestyles of those involved in drug trafficking and violent criminal activity) is related to the dependent variable. Gun carrying (much less frequent among girls) is linked among girls only to the perception that the respondent is likely to suffer a gunshot wound by age 25.

Conclusion

Two issues informed this study: What proportion of high school students in a large suburban area owned and carried guns, especially revolvers and automatic or semiautomatic handguns? What were the motivations (drug activity, criminality, protection in a dangerous environment) behind ownership and carrying of guns by suburban youth? Regarding the former issue, the percentages of students in this study reporting gun ownership and carrying are significant—at least relative to those reported in the investigations cited at the outset of this article. Nearly one in five Jefferson Parish students owned a handgun. Better than one in four boys (28 percent) owned such a gun. Even were we to assume that

ownership of a revolver reflects ownership of a legitimate target pistol by some students, we are still left with one in six boys (16.5 percent) owning an automatic or semiautomatic handgun. Comparable figures for gun carrying in this suburban sample are one in six (17 percent) for the whole sample and one in four (28 percent) for boys.

Contrast these findings with those reported in a study of high school juniors in the city (not the suburbs) of Seattle: 11 percent of the males reported owning a handgun; 6 percent had carried a gun to school sometime in the past (14). As well, one in six male students in selected (troubled by violence) inner-city schools in four States reported owning an automatic or semiautomatic handgun; one in seven owned a revolver; one in three carried a gun at least occasionally (16).

In sum, to the extent that these findings are generalizable (as yet undetermined definitively), we can no longer conceptualize the problem of guns in the hands of juveniles as an urban phenomenon. Firearm activity by suburban youth either has gone undetected while we concentrated on urban gun activity, or (more likely) firearms more recently have found their way into the hands of suburban youth.

The motivation underlying the gun-related activity by Jefferson Parish adolescents (the second major focus of this study) is less clear, in part because the cross-sectional nature of the data makes causal ordering problematic (see previous statements). Prior research locates the source of gun activity among contemporary urban youth in that population's perception that its social environment is hostile. Though bivariate results point to such a link in this sample, multivariate results do not. Those who own handguns do not inhabit discernibly more hostile environments than do nonowners—beyond the danger that characterizes the violent criminality of owners of automatic or semiautomatic weapons. Nor are those who carry handguns more likely the products of dangerous surroundings, independent of involvement in drug and criminal activity.

Since criminality and drug activity characterize but a minority of gun possessors and carriers, what motivates the firearm activity of the majority if not self-protection? Although urban youth and serious juvenile offenders rather clearly are not highly motivated to possess guns for status enhancement, (16,28) perhaps suburban youth are. This observation would suggest some form of subculture (however amorphous) of segments of suburban youth whereby status is accrued through gun possession, and the spread of firearms among juveniles reflects imitation or contagion. The public vocabularies of motive

'Nearly one in five Jefferson Parish students owned a handgun. Better than one in four males (28 percent) owned such a gun. . . . Comparable figures for gun carrying in this suburban sample are one in six (17 percent) for the whole sample and one in four (28 percent) for males.

underlying such behaviors likely center more on selfprotection than on overt efforts to enhance status, but the private evaluation of one's environment as dangerous or safe need not correspond to one's publicly stated evaluation.

We have no data presently by which to investigate these possibilities, so they remain purely speculative. Nonetheless, whether grounded in status enhancement or otherwise, to the extent that gun possession and carrying increase among suburban adolescents, we can expect to observe an escalation of ownership, transport, and use of firearms for "protective" purposes. The size of the youth violence problem now being addressed by the public health professions will increase, but the content of the problem will appear much as it does now.

References

- American Academy of Pediatrics: Policy statement: firearms and adolescents. AAP News, January 1992, pp. 20-21.
- Christoffel, K. K.: Pediatric firearm injuries: time to target a growing population. Pediatr Ann 21: 430-436 (1991).
- Prothrow-Stith, D.: Deadly consequences. Harper, New York, 1991.
- Callahan, C., Rivara, F., and Farrow, J.: Youth in detention and handguns. J Adolesc Health 14: 350-355 (1993).
- Webster, D., Gainer, P., and Champion, H.: Weapon carrying among inner-city junior high school students: defensive behavior vs aggressive behavior. Am J Public Health 83: 1604–1608 (1993).
- Fingerhut, L., Ingram, D., and Feldman, J.: Firearm homicide among black teenage males in metropolitan counties. JAMA 267: 3054-3058, June 10, 1992.
- Fingerhut, L.: Firearm mortality among children, youth, and young adults 1-34 years of age, trends, and current status: United States, 1985-1990. Advance Data, National Center for Health Statistics, Hyattsville, MD, Mar. 23, 1993.
- Mason, J.: Violent and abusive behavior. U.S. DHHS Public Health Service, Washington, DC, 1992.
- Fingerhut, L., Kleinman, J., Godfrey, E., and Rosenberg, H.: Firearm mortality among children, youth, and young adults 1-34 years of age, trends and current status: United States, 1979-1988. Monthly Vital Stat Rep, No. 11 (supp.), National

- Center for Health Statistics, Hyattsville, MD, 1991.
- 10. American School Health Association, Association for the Advancement of Health Education, and Society for Public Health Education, Inc.: The national adolescent student health survey: a report on the health of America's youth. Third Party Publishing, Oakland, CA, 1989.
- Sadowski, L., Cairns, R., and Earp, J.: Firearm ownership among nonurban adolescents. Am J Dis Child 143: 1410– 1413 (1989).
- Lizotte, A., Tesoriero, J., Thornberry, T., and Krohn. M.: Patterns of adolescent firearms ownership and use. Justice Q 11: 51-73 (1994).
- Weapon-carrying among high school students—United States, 1990. MMWR Morbid Mortal Wkly Rep 40: 681-684, Oct. 11, 1991.
- Callahan, C., and Rivara, F.: Urban high school youth and handguns. JAMA 267: 3038-3042, June 10, 1992.
- Sheley, J., McGee, Z., and Wright, J.: Gun-related violence in and around inner-city schools. Am J Dis Child 146: 677– 682 (1992).
- Sheley, J., and Wright, J.: Gun acquisition and possession in selected juvenile samples. Natl Inst Justice, Research in Brief. U.S. Department of Justice, Washington, DC, December 1993.
- 17. Kleck, G.: Point blank. Aldine, New York, 1991.
- Schools confront gun threat. Chicago Tribune, Dec. 7, 1992,
 Sec. 2, p. 3.
- A DC neighborhood under siege. Washington Post, Nov. 19, 1992, pp. A1, A16.
- 20. It's not just New York. Newsweek, Mar. 9, 1992, pp. 25-26.

- 21. A boy and his gun. Time, Aug. 2, 1993, pp. 21-27.
- Violence in schools. U.S. News and World Report, Nov. 8, 1993, pp. 31-36.
- Committee on the Judiciary, Majority Staff Report: 1991 murder toll: initial projections. U.S. Senate, Committee on the Judiciary, Washington, DC, 1991.
- Altschuler, D., and Brounstein, P.: Patterns of drug use, drug trafficking and other delinquency among inner city adolescent males in Washington, DC. Criminology 29: 589-621 (1991).
- Cook, P.: A strategic choice analysis of robbery. In Sample surveys of the victims of crime, edited by W. Skogan. Ballinger, Cambridge, MA, 1976, pp. 173-187.
- Wright, J., and Rossi, P.: Armed and considered dangerous.
 Aldine, Hawthorne, NY, 1986.
- 27. Fagan, J., Piper, E., and Moore, M.: Violent delinquents and urban youths. Criminology 24: 439-471 (1986).
- Sheley, J., and Wright, J.: Motivations for gun possession and carrying among serious juvenile offenders. Behav Sci Law 11: 375-388 (1993).
- Bastion, L. D., and Taylor, B. M.: School crime: a national crime victimization survey report. U.S. Department of Justice, Washington, DC, 1991.
- Asmussen, K. J.: Weapon possession in public high schools.
 School Safety, fall 1992, pp. 28-30.
- O'Brien, R.: Crime and victimization data. Sage Publications, Inc., Beverly Hills, CA, 1985.
- Chaiken, J. M., and Chaiken, M. R.: Drugs and predatory crime. In Drugs and crime, edited by M. Tonry and J. Q. Wilson. University of Chicago Press, Chicago, IL, 1990, pp. 203-239.

SUBSCRIPTION INFORMATION

Public Health Reports is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC, 20402. Subscription prices are \$14.00 for 1 year (six issues) domestic and \$17.50 for foreign subscriptions.

Send new subscriptions and renewals to: New Orders, Superintendent of Documents, P.O. Box 371945, Pittsburgh, PA 15250--7954. Inquiries about subscriptions or orders may be directed to Superintendent of Documents, Order Desk, U.S. Government Printing Office, Washington, DC, 20402-9371, tel. 202-512-1800.

Order Processing Code: Superintendent of * 5380	Documents Subscriptions Order Form
(\$17.50 foreign).	o PUBLIC HEALTH REPORTS (HSMHA) for \$14.00 each per year cludes regular domestic postage and handling and is subject to change.
Customer's Name and Address	For privacy protection, check the box below: Do not make my name available to other mailers Please Choose Method of Payment: Check Payable to the Superintendent of Documents VISA or MasterCard Account
Zip	(Authorizing Signature) (Authorizing Signature) 4/93

Mail To: Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954